

7th Grade
Feb 2, 2021

Today we will:

-review video notes

-do last example
from notes
together

-begin homework



HOMEWORK:

Pg 283 #19-20

Unit 6 test Fri, Feb 5

Unit 6 Project due
Tues, Feb 9

ALEKS assignment:
60 min and 5 topics
due Monday by
11:59pm



Compound Interest

To Find Compound Interest:

Use $I = prt$ and repeat for the number of terms.

Find the total amount in the account after 2 years if \$ 300 is invested at 12% compounded annually

What is the total amount of money after 3 years in an account where \$ 5,000 is invested at an interest rate of 5% compounded annually?

Find the total amount in the account if interest is compounded each year.

\$14,750 at 5% for two years

Example 1:

Example 2:

Example 3:

$$\begin{aligned}
 I &= prt \\
 &= 14,750 \cdot 0.05 \cdot 1 \\
 &= 737.50 \\
 \text{New balance} &= \\
 14,750 + 737.50 &= \\
 \underline{\$15,487.50} \\
 I_2 &= 15,487.50 \cdot 0.05 \cdot 1 \\
 &= 774.38 \\
 \text{New balance} &= \\
 15,487.50 + 774.38 &= \\
 \underline{\underline{\$16,261.88}}
 \end{aligned}$$

Video notes:

Compound Interest

$$\begin{array}{c} I = \\ \hline p \cdot r \cdot t \end{array}$$

Ex.1 \$300 at 12% for 2 years

$$I = prt \quad \downarrow \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{Year} \\ = \$300 \cdot 0.12 \cdot 1 \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} 1 \\ = \$36$$

Add initial amount
+ interest to get new
principal:

$$300 + 36 = \$336$$

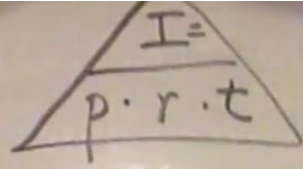
$$I = p \cdot r \cdot t \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{Year} \\ = 336 \cdot 0.12 \cdot 1 \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} 2 \\ = \$40.32$$

$$336 + 40.32$$

$$= \$376.32$$

Compound Interest

Ex. 2) \$5,000 at 5% for 3 years



$$I = p \cdot r \cdot t$$

$$= 5000 \cdot 0.05 \cdot 1 \left. \vphantom{5000 \cdot 0.05 \cdot 1} \right\} \text{Year } 1$$

$$= \$250$$

New balance $5000 + 250$

$$I = p \cdot r \cdot t$$

$$= 5250 \cdot 0.05 \cdot 1 \left. \vphantom{5250 \cdot 0.05 \cdot 1} \right\} \text{Year } 2$$

$$= \$262.50$$

New balance $5250 + 262.50$
 $= \$5512.50$

$$I = p \cdot r \cdot t$$

$$= 5512.50 \cdot 0.05 \cdot 1$$

$$= \$275.63$$

New balance
 $5512.50 + 275.63$
 $= \$5788.13$

Compound Interest

(Ex. 3) \$14,750 at 5% for 2 years

$$\begin{array}{c} I = \\ \hline p \cdot r \cdot t \end{array}$$

$$I = p \cdot r \cdot t$$

$$= 14,750 \cdot 0.05 \cdot 1 \quad \left. \vphantom{14,750 \cdot 0.05 \cdot 1} \right\} \text{Year 1}$$

$$= \$737.50$$

$$\text{New balance} = 14,750 + 737.50$$

$$= 15,487.50$$

$$I = p \cdot r \cdot t$$

$$= 15,487.50 \cdot 0.05 \cdot 1 \quad \left. \vphantom{15,487.50 \cdot 0.05 \cdot 1} \right\} \text{Year 2}$$

$$= \$774.38$$

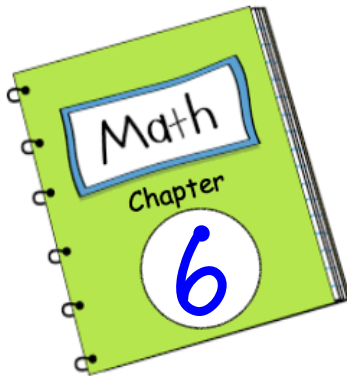
→ New balance

$$15,487.50$$

+

$$774.38$$

$$= 16,261.88$$



TITLE:

Percents



Date	Lesson	Topic/Assignment
1-4	1	Using Percent Proportion Video Notes
1-5	1	HOMEWORK: HW Prac WS
1-5	1	CLASSWORK: Pg253 WS
1-6	2	Finding Percent Mentally Video Notes
1-7	2	HOMEWORK: Skills WS
1-7	2	CLASSWORK: Extra Practice WS
1-8	2	10% Rule Video Notes
1-11	3	Using Percent Equation Video Notes
1-12	3	HOMEWORK: Magnolia Riddle WS
1-12	3	CLASSWORK: Practice WS 6 Boxes
1-14	1-3	CLASSWORK: Reteach Packet
1-19	5	Discount and Markup Video Notes
1-20	5	CLASSWORK: Pg277 WS
1-25	5	CLASSWORK: Polka Dot Task Cards
1-27	6	Simple Interest Video Notes
1-28	6	HOMEWORK: Pg283 #1-4 and #10-15
1-29	6	HOMEWORK: HW Practice WS
2-1	6	CLASSWORK: Simple Interest Task Cards
2-2	6	Compound Interest Video Notes
2-3	6	HOMEWORK: Pg283 #19-20
2-3	6	CLASSWORK: Pg283 #21-22
2-4	ALL	HOMEWORK: Study Guide



HOMEWORK



Name _____

Unit ____ Lesson _____ Due Date _____

Show your work on the lines UNDER THESE PROBLEMS. You will not get credit for doing the homework if you do not show work. LABEL each problem and go down the left margin. Use the back if necessary.

Find the total amount in each account to the nearest cent if the interest is compounded annually. (Example 3)

19. \$595 at 4.75% for 3 years

20. \$840 at 7% for 4 years

↓
0.0475↓
0.07

Calculators OK

$$\textcircled{19} \quad I_1 = prt$$

$$= 595 \cdot 0.0475 \cdot 1$$

$$= 28.26$$

$$\text{New balance} =$$

$$\underline{595} + 28.26 = \$623.26$$

$$I_2 = \underline{623.26} \cdot 0.0475 \cdot 1$$

$$= 29.60$$

$$\text{New balance} = \underline{623.26} + 29.60$$

$$= \underline{652.86}$$

$$I_3 = \underline{652.86} \cdot 0.0475 \cdot 1$$

$$= 31.01$$

$$\text{New balance} = \underline{652.86} + 31.01$$

$$= \$\underline{\underline{683.87}}$$